

CLAIMS

1. A radiation-recording plate constructed and arranged to form an image upon exposure from both a front side and a back side, the plate including a marker detectable in the image after exposure and indicative of which of the front side and the back side the plate is exposed from.
- 5 2. The plate of claim 1, the marker comprising a medium opaque to the radiation coating a region that does not interfere with reading the image when the plate is exposed from either side.
- 10 3. The plate of claim 2, sensitive to X-radiation, the medium comprising one of a heavy element, an alloy including a heavy element, a compound including a heavy element or a salt of a heavy element.
4. The plate of claim 3, the medium being one of Pb, Sn, Bi, I and Ba.
- 15 5. The plate of claim 2, sensitive to X-radiation, the medium comprising a heavy metal suspended in a binder applied to the region.
6. The plate of claim 1, the marker having asymmetry about at least one axis.
- 20 7. The plate of claim 6, wherein the marker has horizontal asymmetry about a vertical axis relative to a normal image orientation.
8. The plate of claim 6, wherein the marker has vertical asymmetry about a horizontal axis
- 25 relative to a normal image orientation.
9. The plate of claim 1, the marker further comprising a back side marker whose appearance in an image on the plate indicates exposure from the back side.
- 30 10. The plate of claim 9, having a layer sensitive to the radiation that is readable only from the front side, the back side marker further comprising at least one of a material that enhances reading the sensitive layer and a material that attenuates reading of the sensitive layer.

11. The plate of claim 9, wherein the back side marker further comprises at least one of a material that enhances exposure of the plate in a defined region and a material that attenuates exposure of the plate in the defined region.
- 5 12. The plate of claim 11, wherein the back side marker further comprises one of a heavy element, an alloy including a heavy element, a compound including a heavy element or a salt of a heavy element.
- 10 13. The plate of claim 12, the medium being one of Pb, Sn, Bi, I and Ba.
14. The plate of claim 1, further comprising a front side marker whose appearance in an image on the plate indicates exposure from the front side.
- 15 15. The plate of claim 14, having a layer sensitive to the radiation that is readable at least from the front side, the front side marker further comprising at least one of a void defined in the layer sensitive to the radiation, a material that enhances a signal returned in the area of the marker when reading the sensitive layer and a material that attenuates the signal returned in the area of the marker when reading the sensitive layer.
- 20 16. The plate of claim 15, readable only from the front side by exciting the layer sensitive to the radiation with an excitation wavelength to generate a return signal at a return signal wavelength, the front side marker functionally opaque to at least one of the excitation signal wavelength and the return signal wavelength.
- 25 17. The plate of claim 15, wherein the front side marker further comprises one of a heavy element, an alloy including a heavy element, a compound including a heavy element or a salt of a heavy element.
- 30 18. The plate of claim 17, the medium being one of Pb, Sn, Bi, I and Ba.

19. The plate of claim 15, wherein the front side marker further comprises a void defined in the layer sensitive to the radiation.
20. The plate of claim 1, the marker having asymmetry about at least one axis and the marker
5 further comprising a front side marker and a back side marker.
21. The plate of claim 20, wherein the marker has horizontal asymmetry about a vertical axis relative to a normal image orientation.
- 10 22. The plate of claim 21, wherein the front side marker further comprises:
a region defined to have a directional marker shape pointed in a first direction when viewed from the front side.
23. The plate of claim 22, wherein the back side marker further comprises:
15 a region defined to have a directional marker shape pointed in a second direction different from the first direction when viewed from the front side.
24. The plate of claim 23, wherein the back side marker is positioned so as to obscure the front side marker when the plate is exposed from the back side and read from the front side.
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25. The plate of claim 20, wherein the marker has vertical asymmetry about a vertical axis relative to a normal image orientation.
26. The plate of claim 25, wherein the front side marker further comprises:
25 a region defined to have a directional marker shape pointed in a first direction when viewed from the front side.
27. The plate of claim 26, wherein the back side marker further comprises:
a region defined to have a directional marker shape pointed in a second direction
30 different from the first direction when viewed from the front side.

28. The plate of claim 27, wherein the back side marker is positioned so as to obscure the front side marker when the plate is exposed from the back side and read from the front side.

29. The plate of claim 15, further comprising another sensitive layer, wherein the back side
5 marker is disposed between the sensitive layer and the other sensitive layer, and the plate further comprising another front side marker relative to the other sensitive layer.

30. A method of identifying a side from which a radiation-recording plate has been exposed to radiation, comprising:
10 incorporating in the plate, in a position that substantially does not interfere with an image area of the plate, a marker whose appearance in the image identifies which side the plate is exposed from;
exposing the plate to the radiation; and
observing the image for the identification of the side of the plate exposed.

15 31. The method of claim 30, further comprising:
arranging the marker to indicate a rotational orientation of the plate; and
observing the image for the indication of the rotational orientation of the plate.

20 32. The method of claim 31, further comprising:
observing the image using image processing software, the image processing software recognizing the marker and reorienting an image of the plate to have a clinically expected orientation.

25 33. The method of claim 32, further comprising:
storing with the image an indication of whether the image has been reoriented by an odd number of times.

30 34. The method of claim 32, further comprising:
substituting for the marker a replacement marker indicative of the software having processed the image;
storing the image with the replacement marker.

35. The method of claim 34, further comprising:

storing with the image an indication of whether the image has been reoriented by an odd number of times.

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36. A method of making a radiation sensitive plate having at least one radiation sensitive layer, comprising:

providing a film sensitive to the radiation on a first side of the radiation sensitive plate; and

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applying a suspension of a heavy metal in a binder to a region of a second side of the radiation sensitive layer.